



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,250	09/22/2003	Junichi Matsumoto	242958US2	9520
22850	7590	11/09/2004	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			LEE, PETER	
			ART UNIT	PAPER NUMBER
			2852	

DATE MAILED: 11/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/666,250	Applicant(s) MATSUMOTO ET AL.	
	Examiner Peter Lee	Art Unit 2852	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☒ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/22/03</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:

Fig. 1 shows reference parts 20Y, 20M, 20C, and 20BK that are not mentioned in the specification.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

1. The disclosure is objected to because of the following informalities:

Replace "...tone..." with --toner-- on page 2 paragraph [0039] as seen in the pre-grant publication.

Replace "...with..." with --width-- on page 4 paragraph [0063] as seen in the pre-grant Publication.

Appropriate correction is required.

Claim Objections

2. Claims 8 and 9 are objected to because of the following informalities:

Claim 8 includes the claim limitation for the toner storing body being part of a toner *cartridge*. It is noted that under "Description of the Background Art" there is mention that the use of a toner cartridge is commonly known. However, it is not clear in the applicant's description of his invention that he is using such a cartridge design. This aspect of the invention is not fully disclosed in the specification as required by 37 CFR 1.75(a).

Claim 9 further includes the claim limitation for the toner storing body being part of a *refillable* toner cartridge. As mentioned above, it is not fully disclosed how or why the toner dispenser of the claimed invention is part of a toner cartridge, and no mention of the toner storing body being capable of being refilled is disclosed either. See 37 CFR 1.75(a).

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Welch et al. (US pn 6311745) in view of Terazawa et. al. (US pre-grant publication 2001/0017998).

Welch teaches a powdered toner dispensing system (fig. 1 part 10) comprising: a dispensing container to hold the toner (Fig. 1 part 12) (ie. powder storing body) with an outlet (fig. 1 part 38) at one end, a first portion of the valve (fig. 4 part 62) (ie. a base member) that is affixed to the bottom end of the dispensing container comprised of said outlet (note col. 5 lines 54-60), wherein said first portion of the valve works in conjunction with a second portion of the valve (fig. 4 part 64) (ie. outlet member), which is formed with a passage configured to transfer the powder from said dispensing container to an outlet of the dispensing container (fig. 3 part 38; note: col. 3 lines 60-63 and col. 5 lines 56-60) and has a valve to close and open (fig. 4 part 60; note col. 6 lines 1-5) (ie. shutter function) for selectively allowing passage through said outlet passage, with the second valve portion (ie. outlet member) to be easily coupled and then easily separated from first valve portion (col. 6 lines 5-8) (ie. connected to or disconnected to base member) .

Welch further teaches said first valve portion (fig. 4 part 62) (ie. base member) comprising of a powder passage (fig. 3 part 38) that allows the powder to pass there through, and the said passage has an opening area (this opening area is understood to be the opening due to the second valve portion that will encompass a separate receiving container as seen in fig. 5 part 64) larger than an open area of said first valve portion (this is seen in fig. 5 when the first valve portion 62 is seen to fit into the second valve portion 64, and the flip member 76 opens up with a smaller diameter than the opening of the second valve member 64).

Welch also further teaches the powder passage having an opening area (fig. 3 part 38), as measured in a plane perpendicular to a direction of flow of said powder in said powder path, and the dispensing container having lower walls that decrease in diameter in the downward direction towards the outlet of the container (col. 3 lines 60-64) (ie. decreasing from said opening of said powder storing member toward said outlet member).

Welch does not teach the dispensing container being bag-like in shape and made of a flexible material. Welch also does not teach the flexible material being used to comprise sheets to constitute side and top wall portions that are foldable inwards.

It is Terazawa who teaches a box member (fig. 1 part 30) (ie. body member) of a toner container (fig. 1 part 1) being comprised of a powdered toner deformable bag (fig. 1 part 2) (ie. bag-like powder storage body). The said toner bag is comprised of a single flexible sheet of polyethylene (page 2 paragraph [0046]) that constitute side walls (ie. side surfaces) when the mouth member (fig. 1 part 3; note this mouth member is referenced to indicate where the first valve portion taught in Welch would be) (ie. base member) is positioned at a bottom position, and this same sheet member constitutes a top portion of the toner bag (ie. sheet member

constituting a top). The said top portion of the toner bag is comprised of folded portions (fig. 1 part 10; note page 3 paragraph [0054]), which along with the foldable portions shown by the dashed line on the side walls of the body portion (fig. 1 part 6), will allow the toner bag to be foldable inwards.

Terazawa further teaches the flexible sheet forming a tapered portion (fig. 1 part 7) (ie. inclined toward said base member little by little) that is contiguous with the body portion of the bag and ends with the tapered outlet at the mouth of the bag (page 2 paragraph [0046]). The toner containing bag taught by Terazawa is built so as to prevent “buckle” in the bag structure as seen in Fig. 3 (paragraph [0048] and [0049]). By retarding the buckle in the toner bag, the toner bag succeeds in keeping an angle between each of the inner surfaces and a horizontal plane greater than an angle of repose of when the toner is packed in said toner bag (toner filled bag seen in Fig. 2).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the flexible bag-like powder container body as taught by Terazawa in a powdered toner dispensing device as taught by Welch. One of ordinary skill in the art would have been motivated to use the flexible bag-like toner container body capable of being foldable inwards because the toner container then becomes easier to handle than a traditionally hard case would, and the flexible bag-like container takes up a minimum of space which is a desirable trait (Terazawa page 5 paragraph [0079]).

As to claim 4, official notice is given to applicants claim limitation for the base member being of rectangular shape. However, the particular shape of such an aperture in the application it is being used for does not warrant criticality. One of ordinary skill in the art would have found it

obvious to allow such a base member to be made from a variety of shapes ranging from the circular base as seen in Welch, to the rectangular as seen in the current application. Further, since there is no basis of criticality regarding the shape of the base member given by the applicant in the disclosure, this particular limitation regarding the rectangular shape will not be considered. It is further viewed that with such a rectangular base member, the other limitations of the claim dealing with the a pair of side surfaces, which face each other, substantially parallel to a front and a rear surface of said powder storing body, and a width between a right and a left surface of said powder storing body is smaller than a width between said pair of side surfaces of said base member will be taught by the powdered toner dispenser taught by the reference Welch.

4. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merle in view of Terazawa, and further in view of Beaufort et al. (US pn 5594535).

Welch teaches a refillable toner dispensing container (container is said to have an opening through which powder can be filled; fig. 1 part 32) (ie. toner storing body) formed with a valve opening at one end (fig. 4 part 60; col. 5 lines 55-50) (ie. open portion at one end); a toner stored in said toner container (abstract 1st sentence); an outlet configured to discharge the toner from said toner container (fig.1 part 38; col. 3 lines 60-63); a second valve portion (ie. outlet member) formed with the outlet passage configured to deliver the toner from said powder container to an outlet, and when connected to a first valve portion having a range of open and shut positions is possible (note col. 6 lines 13-24) (ie. shutter function) for selectively blocking or unblocking said passage; and a first valve portion (fig. 4 part 64) (ie. base member) affixed to said first valve portion (ie. open portion) of said toner container and configured to be selectively

locked or unlocked (ie. connected to or disconnected) from said second valve portion (ie. outlet member) (col. 6 line 1-8).

Welch does not teach the toner dispensing container to be part of a toner cartridge, nor does he teach the toner container being of a bag-like form.

It is Terazawa who teaches the use of a powdered toner deformable bag (fig. 1 part 2) (ie. bag-like powder storage body). The said toner bag being comprised of a single flexible sheet of polyethylene (page 2 paragraph [0046]).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the flexible bag-like powder container body as taught by Terazawa in a powdered toner dispensing device as taught by Welch. One of ordinary skill in the art would have been motivated to use the flexible bag-like toner container body capable of being foldable inwards because the toner container then becomes easier to handle than a traditionally hard case would, and the flexible bag-like container takes up a minimum of space which is a desirable trait (Terazawa page 5 paragraph [0079]).

And further it is Beaufort who teaches a refillable toner cartridge that employs a flexible toner bag similar to that found in Terazawa (fig. 2 part 85; col. 2 lines 20-24 and col. 4 lines 4-6).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to make the powdered toner dispenser system taught by Welch, with the flexible toner bag taught by Terazawa, to be part of a toner cartridge as seen in Beaufort. One of ordinary skill in the art would have been motivated to make the toner dispenser system taught by Welch into a cartridge apparatus as taught by Beaufort because the cartridge layout allows for

Art Unit: 2852

easy replacement of certain parts of an electrophotographic image machine to be replaced, namely the toner replacement (col. 1 lines 50-60).

Allowable Subject Matter

5. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claimed limitations could not be found in the cited references.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mouchmouchian (US pn 5462101) is cited as pertinent art for teaching a pin-sliding shutter member.

Ichikawa et al. (US pn 6126315) is cited as pertinent art for teaching a deflatable bag made of a flexible material that is capable of collapsing inwards with the emptying of its contents.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Lee whose telephone number is 571-272-2846. The examiner can normally be reached on mon-fri 9:00 am-5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley can be reached on 571-272-2136. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PL 1/5/04



Arthur T. Grimley
Supervisory Patent Examiner
Technology Center 2800